



## MIT SCALE RESEARCH REPORT

The MIT Global Supply Chain and Logistics Excellence (SCALE) Network is an international alliance of leading-edge research and education centers, dedicated to the development and dissemination of global innovation in supply chain and logistics.

The Global SCALE Network allows faculty, researchers, students, and affiliated companies from all six centers around the world to pool their expertise and collaborate on projects that will create supply chain and logistics innovations with global applications.

This reprint is intended to communicate research results of innovative supply chain research completed by faculty, researchers, and students of the Global SCALE Network, thereby contributing to the greater public knowledge about supply chains.

**For more information, contact**  
MIT Global SCALE Network

**Postal Address:**  
Massachusetts Institute of Technology 77  
Massachusetts Avenue, Cambridge, MA 02139 (USA)

**Location:**  
Building E40, Room 267  
1 Amherst St.

**Access:**  
Tel: +1 617-253-5320  
Fax: +1 617-253-4560

Email: [scale@mit.edu](mailto:scale@mit.edu)  
Website: [scale.mit.edu](http://scale.mit.edu)

**Research Report: ZLC-2005-2**  
**Excellence in European Apparel Supply Chains: Zara**  
**Phyllis Chu**

**For Full Thesis Version Please Contact:**

**Marta Romero**

**ZLOG Director**

Zaragoza Logistics Center (ZLC) Edificio

Náyade 5, C/Bari 55 – PLAZA 50197

Zaragoza, SPAIN

Email: [mromero@zlc.edu.es](mailto:mromero@zlc.edu.es)

Telephone: +34 976 077 605

# EXCELLENCE IN EUROPEAN APPAREL SUPPLY CHAINS: ZARA

MIT-Zaragoza International Logistics Program

Executive Summary

May 2005

Phyllis Chu

This research paper is a contribution to Phase One of the MIT Supply Chain 2020 research initiative, which uses Phase One to examine excellent supply chains across industries and Phase Two to build upon the findings made in Phase One to look at the future of excellent supply chains. In this thesis, the European apparel industry is analyzed using Zara as an example of an excellent supply chain, since it is known for its ability to bring new designs to their stores within 10-14 days. The approach to this research was to first get a firm understanding about the apparel industry through its characteristics, trends and industry drivers, and supply chain issues. After this understanding of the apparel industry was established, we looked at Inditex and then specifically at Zara's supply chain. In the detailed analysis of Zara's supply chain and its business processes, Zara's specific supply chain framework is further analyzed with respect to its strategy, operating model, and tailored business processes.

The information assembled for this research came from various case studies, articles, industry experts, and books in both Spanish and English about the apparel industry and Zara. The European apparel industry was found to be an important part of the economy of Europe and is due to change with the recent changes in trade quotas. Inditex, Zara's parent company is a growing company in the European apparel industry with eight retail chains that primarily sell apparel, footwear, home decorations. Zara makes up about 70% of Inditex, and is a fashion chain that sells apparel, footwear, perfume, cosmetics and accessories for women, men and children. Zara is well positioned among its competitors, H&M, the Gap, Benetton and Mango and in close competition with H&M. Zara's business model consists of four processes that all link together forming a continuous loop. The cycle begins with design and is followed by

production/sourcing, logistics, and retailing. By looking at this information from a supply chain strategy point of view and analyzing Zara's operations an idea of what contributes to supply chain excellence is formed in this paper.

Some of the unique features to the apparel industry's supply chain structure are the labor intensive manufacturing process, the short product life cycle and the high level of demand uncertainty in fashion products. Examples of the drivers of the industry are brand image and product proliferation. These features and drivers have pushed the apparel industry to respond with supply chain features such as technology that enables companies to access real time POS information for better demand forecasting and abilities to create more customized products, which contributes to the product proliferation trend.

After creating a knowledge base of Zara's business model, supply chain operations, and strategy, an in-depth strategy analysis is made in this thesis. Zara's vertically integrated supply chain starts with procurement of raw materials (such as fabric and components), the manufacturing process at Inditex-owned factories and subcontracted workshops, and distribution to Inditex-owned retail stores. Zara also fully outsources some of its production of more basic items and leather goods to local suppliers or suppliers from low cost regions. Some of the features of Zara's supply chain include local sourcing and production for fashion items, store deliveries twice per week, and small production batch sizes. Zara's competitive strategy is to offer innovative fashion at attractive prices while fostering scarcity. Zara offers a high variety of fashionable apparel when the customer wants it, at a price that is much lower than those of designer labels. Zara's manufactured scarcity is one of the ways that Zara increases the value of its product since a fashion item is only fashionable until it becomes common. It also encourages customers to buy the product when they see it since they know it may not be there again. Zara creates a competitive advantage by offering a high value to its customer for a low price. Zara's operating model of a fast, efficient and flexible supply chain supports this strategy with by achieving rapid response. Zara focuses on several operational objectives that are done to help Zara achieve its strategy. Some of these

objectives include fast response times, maintaining a high variety of styles in the store, and maintaining a steady supply chain rhythm and schedule.

Zara differentiates itself from other retailers and maintains its competitive advantage through its tailored business processes in design, production and replenishment. The design process is enabled by the information collected from POS data, customer demand and research on fashion trends. In order to support Zara's operating model of quick response, Zara's design team is closely linked with the POS data and customer demand data transferred by the store managers. Zara's production process fosters scarcity, which is one of the aspects of Zara's overall strategy. In the tailored production process, fashion garments are created in small batches, which means that there are never large amounts of one style in each store. The production process is enabled by its *just in time* practices in its Inditex-owned factories, postponement at the procurement level, and local sourcing of materials and labor. Zara's rapid, frequent and small replenishments allow the retail chain to offer a high variety of products and allowing Zara to keep products scarce but still meet customer demand. The speed and frequency of the replenishment process also allows Zara to offer its products as "fashion" items since fashion is characterized as having a short product life-cycle. In addition, Zara's underutilization of capacity allows it to maintain the same level of responsiveness even during peak demand periods.

The analysis on Zara has described its strategy, operating model and objectives, and its tailored business processes that have contributed to its position in the industry today. Zara's supply chain practices have put this company in the spotlight over the past few years with several academic and business articles written about Zara's impressive two week lead time achievements. Although Zara's vertically integrated structure differs from many of the other apparel retailers since many of them concentrate solely on production or retailing, Zara's excellence across the entire supply chain makes it an ideal company to analyze. One of the key factors to Zara's quick response is the close proximity of its sourcing and production to its customers. One of the success factors of their supply chain is the fact that the majority of their stores are in Europe and concentrated in Spain. Zara can offer its

reasonable prices and short lead times because it can still source locally and sell locally. If Zara continues to expand internationally, and create major markets in new geographical regions, it will be forced to consider replicating their supply chain in these regions in order to serve those areas as they do in Europe. Zara's success as a company is attributed to not only its fast and flexible supply chain, but also its consistently fashionable design. In apparel, marketing and the brand image drive demand which are the biggest contributors to the success of a company. Zara's consistent fashionable design is one of the main factors that maintains its brand image as a highly fashionable retailer. Its quick response supply chain practices make sure that its designs reach the customer while they are still in demand.